

Calderbank 19-6-42

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Technology Center 2600

Patent Application

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| Inventor(s) | Arthur Robert Calderbank Ayman Naguib Nambirajan Seshadri | Case Name | Calderbank 19-6-42 |
| Filing Date | 4/28/1999 | Serial No. | 09/300494 |
| Examiner | Chieh M Fan | Group Art Unit | 2634 |
| Title | Combined Channel Coding and Space-Block Coding in a Multi-Antenna Arrangement | | |

ASSISTANT COMMISSIONER FOR PATENTS

WASHINGTON, D.C. 20231

SIR:

AMENDMENT

In response to an Office action dated April 10, 2001 please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 1, replace the title paragraph beginning at line 1 with:--

1
Combined Channel Coding and Space-Time Block Coding in a Multi-Antenna
Arrangement --;

Page 1, replace the paragraph beginning at line 14 with:--

2
• U.S. Application 09/114,838, filed July 14, 1998, titled "Combined Array Processing
and Space-Time Coding," which is based on U.S. Provisional Application No.
60/052,689, filed July 17, 1997.--;

Page 4, replace the paragraph beginning at line 9 with:

3
In the aforementioned 09/114,838 application, an arrangement is disclosed that
provides enhanced performance which is realized by employing a perspective that
combines array signal processing with channel coding. Specifically, antennas at the
transmitter are partitioned into small groups, and individual space-time codes are used to
transmit information from each group of antennas. At the receiver, an individual space-
time code is decoded by a linear array processing technique that suppresses signals